

Claims

1. A power generating system comprising: a plurality of electrochemical cells that are selectively activated individually or in combination to produce power from selected cells.
2. The power generating system as in claim 1, further comprising a controller to selectively activate one or more cells.
3. The power generating system as in claim 1, wherein one or more of the cells comprise primary batteries and one or more of the cells comprise secondary batteries.
4. An electrochemical power system for connection to a load comprising:  
a plurality of arrays of electrochemical cells in a parallel configuration,  
each array including a plurality of electrochemical cells arranged in series; and  
a controller system for controlling which one or more arrays of the  
5 plurality of arrays is to be in connection with the load.
5. The system as in claim 4, wherein the controller system includes a switch associated with each of the arrays and a logic system.

6. An electrochemical cell system comprising:  
a plurality of sections of electrochemical cells, wherein individual sections are controlled for activation of one section or for activation in successions.

7. The electrochemical cell system as in claim 6, wherein at least one section comprises metal air electrochemical cells.

8. The electrochemical cell system as in claim 7, further wherein at least one section comprises secondary electrochemical cells.

9. The electrochemical cell system as in claim 8, wherein the secondary electrochemical cells have a higher power output and lower capacity than the metal air electrochemical cells, and further wherein activation control provided for activation of the metal air electrochemical cells at a load below a predetermined level value or range  
5 and activation of the secondary electrochemical cells at a load above a predetermined level value or range.

10. The electrochemical cell system as in claim 8, wherein upon activation of section of metal air electrochemical cells in response to a load current, the activated section discharges to a preselected depth of discharge or until completely discharged.

11. The electrochemical cell system as in claim 7, wherein the metal air  
electrochemical cells comprise reserve cells wherein cell components selected from the  
group of electrolyte, oxidant, anode, cathode, and any combination comprising at least  
one of the foregoing components are incorporated into the cells upon activation or at a  
5 controlled time prior to activation.

12. A method of generating power comprising:  
selectively activating a first group of one or more electrochemical cells of an  
array of cells based on requirement of an associated load; and  
switching to a second group of one or more electrochemical cells of the array  
5 when the first group is discharged.

13. The method as in claim 12, further comprising switching to a third group of  
one or more electrochemical cells of the array when the second group is discharged.

14. The method as in claim 12, wherein the first group comprises rechargeable  
cells and the second group comprises primary cells.